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ABSTRACT

Project SHAL was undertaken in four northern St. Louis (Missouri) schools (Stowe, Hempstead, Arlington, and Laclede) in an effort to introduce key features of effective schools into the educational system. One of the project's major goals was to develop a model for implementing effective schooling procedures that would permit replication of the implementation process in other schools in the district. A model used to track desegregation activities was chosen as a basis for designing the replication model and was itself based on a model of change processes. This paper describes the replication model as it was modified through field testing and presents the model in a tabular form that displays the stages of growth toward full implementation of the various effective school characteristics. The researchers believe the model is generally adaptable to any change effort involving research utilization and featuring key elements that can be defined, described, and evaluated. (PGD)

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Development and Use of a Replication and Evaluation Model to Track the Implementation Progress of Effective Schools Elements in an Inner City Setting

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Paper prepared for the Annual Meeting of the Mid-South Educational Research Association (New Orleans, LA, November 1982).

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Development and Use of a Replication and Evaluation Model
to Track the Implementation Progress of Effective
Schools Elements in an Inner City Setting*

Background and Setting

In recent years there has been a good deal of concern over issues of student outcomes, especially as these are considered in what is generally known as the "effective schools" research. Many of these researchers (see Figure 1 and bibliography) have identified the same, or very similar, elements that seem to exist where effective schools have been studied (Figure 1 about here.) Primarily, some schools have been termed effective because youngsters in these schools succeed beyond normal expectations (based upon such things as socio-economic status, cultural disadvantagement). Most of the prior researchers have visited effective schools and attempted to isolate and identify those elements present that contributed to the schools being "effective" (as measured by pupil performance on standardized tests). Project SHAL, supported partially by funds from the Danforth Foundation and conducted in the St. Louis, Missouri, schools is building on the prior research. The developers of Project SHAL synthesized findings of prior research, identified activities and elements that are present in effective schools, and then set out to put those elements into place in four schools generally identified as not being successful (i.e., low pupil achievement, high absenteeism and tardiness, poor school spirit, etc.)

A cluster of 4 schools (Stowe, Hempstead, Arlington, and Laclede) in northern St. Louis was chosen was a place to pilot test a program which would consciously implement key aspects of "effective schools." One goal or outcome of implementing these aspects of effective schooling was to have youngsters who participate in the program attain and maintain grade level as identified by national norms on measures on basic skills (reading, arithmetic).

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In the Fall, 1980, the St. Louis schools adopted the California Achievement Test (CAT) to test pupil progress in the District. The Fall, 1980 CAT results became the baseline for Project SHAL. The Danforth grant was awarded in November, 1980. Initial planning and readiness efforts were started. Structure was established. The four principals for the SHAL schools received inservice and visited effective schools that were already operating. The Mid-West Race Desegregation Assistance Center (MWRDAC), Kansas State University was called upon to assist with inservice, evaluation, and development of a replication model. The replication model was to help "track" implementation of SHAL in the four schools and to be available to guide expansion of SHAL if it should prove effective in the pilot test. Teacher inservice occurred in Summer, 1981, and in Fall, 1981, pupils in the SHAL schools began experiencing the program. In terms of the evaluation and project outcomes, there were few requirements. SHAL had two major goals:

1) to develop a "replication" model that would help in tracking the implementation of SHAL and also help in assessing progress,
2) youngsters in Project SHAL would attain and maintain grade level on national norms.

The Replication Model

One requirement of Project SHAL was to identify a "replication model" to assist others in instituting elements of effective schooling. The model should also be able to assist in implementation evaluation and to provide a profile of each school on key elements. The task of developing a replication model has been interesting. One major challenge was to identify some theoretic framework that would allow this model to be useful not only in implementation of Project SHAL but in other implementation activities as well. Work with the MWRDAC had previously produced a draft of a model to track desegregation activities. This became the basis for the replication model in Project SHAL.

The MWRDAC draft had essentially three dimensions:

1) a change-model basis (Achilles and Norman, 1974),
2) provision to show that people grow in their motivation to do things right (Kohlberg's notions of stages of moral growth), and
3) inclusion of descriptors of events or activities generic to the process being studied and displayed in a developmental (linear growth) manner through the steps of the change process and stages of moral growth.

Figure 2 shows the basic framework of the change process model. Figure 3 shows the relationship of the change model and the stages of moral development as they were used to develop the framework for the SHAL replication model. (Figures 2 and 3 here.)

Note that Figure 3 shows a three-tier change model relative to a five-level concept of growth. This initial model with five steps was used in the first field test. The field test identified some problems with the initial model. A four-tier model resulted from the field test. The top level of the model includes descriptors of each element as derived from research and the effective schools literature. These top-level descriptors are goals or desiderata. The other three levels describe actual outcomes of increasing intensity and involvement with SHAL. Both the framework and elements from Project SHAL constitute the replication model. The elements of the model (and SHAL) from the effective schools research include: strong administrative leadership, high expectations for pupil performance (and for teacher performance), a positive school climate conducive to learning, emphasis on basic skills, frequent monitoring of progress, and a resultant increase in pupil achievement. These five elements of SHAL (and the criterion element of increased pupil achievement) displayed in the four-tier framework with appropriate descriptors for the growth of the element toward the top level, or goal, constitute the replication model. (Figure 4 about here.)

Three checklists corresponding to descriptors within the model have been developed. They are in the process of validation and will be tested in 1982-83 for reliability and suitability in the actual setting (ecological validity). One checklist is expressed in non-technical terms and is for use by parents or non-professionals in education. One checklist focuses directly on the principal's behavior. The third is more complex; it is designed for research and additional theory building.

The SHAL replication model is a tool to evaluate the process of implementation. The general concepts underlying the model can be adapted to other implementation efforts. With appropriate adaptations, elements of other efforts can be build into the model in the place of the effective schools elements. Addition of appropriate descriptors, steps, etc. would complete the model.

Conclusion

Although it is important to evaluate outcomes, researchers have also identified the need to evaluate the degree of implementation of an innovation (e.g., Charters and Jones, 1973; Hall and Loucks, 1977; Leithwood and Montgomery, 1982). The model presented here is one theoretic and field-tested procedure to track implementation and to provide guidelines for replication. The model is generally adaptable to any change (research utilization) effort where key or major elements can be defined, described, and evaluated.

After two years of operation, Project SHAL has shown noteworthy gains in such things as pupil attendance, achievement on standard tests, parental involvement. For 1982-83 Project SHAL has been increased from 4 to 16 schools.

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Administrator - A
Teacher - B

BEHAVIORS POSITIVELY ASSOCIATED WITH SCHOOL OUTCOMES

Behavior	Weber	N.'l State Performance Review	Madden	Wellisch	Edmonds	Brookover	Calif. Sch. Improvement Project	Rutter	Goodlad	Clark et. al.	Medley	Venezky et. al.
Coordinates Instructional Programs. (A)				X	X	X	X			X		X
Emphasizes Achievement (Basic Skills) (A&B)	X	X	X	X	X	X	X	X	X	X	X	X
Frequently Evaluates Pupil Progress (A&B)	X	X	X		X	X	X			X		X
Prov_des Orderly Learning Climate (A&B)	X	X	X		X	X	X	X	X	X	X	X
Sets Instructional Strategies (A&B)	X	X	X	X	X	X	X	X	X	X	X	X
High Expectations for Students (A&B) (To Learn)	X	X	X	X	X	X	X	X	X	X	X	X
(Time Mgt.) Task Oriented (B)		X		X		X	X		X	X	X	X
(Structured) Direct Instruction (B)		X	X			X	X		X		X	
Use of Variety of Reward Systems (A&B)		X	X	X			X		X		X	
Involved in Curriculum Planning (Structuring) (A&B)		X	X			X	X		X		X	X
Preventive Rather Than Punitive Discipline (A&B)	X		X	X	X	X				X		X

Figure 1. Summary of Effective Schools elements displayed by the authors/studies with which they are associated. Compiled by R. High, MAARDAC, College of Education, University of Tennessee, Knoxville.

	ELEMENTS OF COMMUNICATION				MANAGEMENT/EVALUATION STEPS		
	(1) Stage of Change Process (Messages)	(2) Facilitators (Transmitters)	(3) Channels or Processes	(4) Audiences or Target (Receivers)	(5) Purpose	(6) Results Action/Taken	(7) Evaluation: Methods/Outcomes
C	Adoption or Adaptation (Incorporation) Confirmation Coaching/Tutor [Implement]						
B	Evaluation/Trial (Implementation) Persuasion and Decision [Exchange/Choice]						
A	Awareness Interest (Initiation: Mobilization) Knowledge [Spread]						

Figure 2. Communication/Change Matrix Relating Communication Theory and Change Process. Columns 5-7 --- and additional ones that might be added -- will provide direction and assist in analysis of implementation (or data). Terms in ( ) are from RAND (Berman and McLaughlin), terms underlined are from Rogers (1962), terms in [ ] are from NDN, and other terminology is Rogers and Shoemaker (1971). Basic model from Achilles and Norman (1974), and Tennessee State Facilitator Project (TSFP) to the NDN for 1976-1982.

STAGES	LEVELS	ORGANIZATIONAL MOTIVATION	ASSESSMENT INDICATORS * ADMINISTRATIVE DECISION MAKING	
Adoption or Adaption (Incorporation) Confirmation ↑	ADVOCACY	Because it it best for students staff and community to build a better, more equitable society. Investment in human-centered issues: growth - centered, long-range systematic implementation plans based upon identified needs.	Collegial - Roles and responsibilities of staff will accommodate continuing and emerging issues and needs. Systems and programs address those needs. Systematic, process-centered approaches; proactive orientation; interactive and developmental.	
	APPLICATION	Because we consider a better society beneficial and we are willing to consider our own personal/professional development. Identifies/isolates solutions to identified concerns through a problem solving approach.	Cooperative - Increased involvement of staff in identifying problems and implementing solutions.	
Evaluation or Trial (Implementation) Decision ↑	EXPLORATION	Because we want to be thought of as professionals. Awareness of persisting or re-occuring problems; recognition of the complexity of problems. We want to be known as good educators	Searching - Solicits, reviews and evaluates information, alternatives and strategies to address concerns or problems. Limited problem resolution; emphasis on exploring alternatives. Some involvement of staff. Administration init'ates, solicits and disseminates info.	
	INITIATION	Because we don't want to let concerns get out of hand. Reactionary responses. We need to control problems.	Responsive- Administration responds to identified problems. Situational solutions, product centered. Reactive orientation.	
Awareness or Interest (Mobilization) Knowledge and Persuasion	RECOGNITION	Reacts to external legal or administrative changes (state or federal government, courts). Aware of discomfort, confusion. Desire to eradicate discomfort. Need to comply with law.	Maintenance - Limited and superficial administrative action. Seek to maintain the status quo.	

*Recognition of Midwest RDAC where developmental work on this model was initiated, carried forward and pilot tested.

Figure 3. Basic framework showing overlay of change steps and stages of moral growth used in conceptualizing the SHAL replication model.

PROJECT SHAL: AN EFFECTIVE SCHOOL IMPLEMENTATION/REPLICATION MODEL

STAGES	LEVELS	PROGRAM ELEMENTS: ADMINISTRATIVE LEADERSHIP	PROGRAM ELEMENTS: SCHOOL CLIMATE	PROGRAM ELEMENTS: HIGH EXPECTATIONS
Adoption or Adaption (Incorporation) Confirmation	INSTITUTIONALIZATION AND RENEWAL (ADVOCACY)	Principal: coordinates instructional programs; emphasizes achievement; sets broad school-wide goals and objectives; sets personal goals and objectives; transmits well-defined set of goals to faculty, parents and community; plans and schedules to make optimal use of human and physical resources; accepts responsibility for what goes on at school; emphasizes teacher inservice in specific content areas and classroom management techniques; keeps abreast of research in education for implementation as needed; takes assertive dominant role in decisions about the selection of instructional materials and in program planning and evaluation; monitors the instructional process; set standards of performance for teachers and self.	Discipline code outlines consequences of unacceptable behavior. Discipline code is enforced consistently and fairly; understood and accepted by most parents, teachers and students. School functions as a coherent whole rather than teachers functioning as individuals. Principal: promotes an atmosphere that is orderly without being rigid, quiet without being oppressive, and generally conducive to the business at hand; enables teachers to teach by limiting housekeeping chores. Supports workers. Acts as resource and aggressively seeks resources for teachers. Fosters trust through positive teacher/principal interaction. Aggressively seeks and obtains political, parental and financial support.	Staff believes all students can master basic objectives. Students are expected to gain one year or more on standardized test for each school year (math, reading, writing). Trend continues or increases each subsequent year. Principal communicates high expectation of self and faculty to achieve school's goals and objectives. Teachers are expected to have expectations for students and to communicate expectations to their students. Staff communicates to students that they can learn and are expected to become good citizens and to graduate from high school.
↑ Evaluation or Trial (Implementation) Decision	IMPLEMENTATION (TRIAL/PILOT) (APPLICATION)	Principal: focuses on climate, high expectations, basic skills, assessment, pupil achievement (and refocuses staff interest on these); plans with a sense of timing and moves from problem to program orientation; is highly visible (school grounds, hallways, and classrooms); schedules instructional supervision sessions; plans instructional events into the schedule; provides ongoing support to staff while focusing on the key goals of the project; strives to achieve school norms; knows school: pupils, parents, staff and neighborhood; treats parents/students/staff with respect.	Respect and courtesy permeate the building. Sense of community and pride in building is felt and exhibited through potluck meals, informal coffees, etc. Sense of spirit. Staff members feel they are part of the school. Teachers feel responsible for all students and for classroom discipline. If teachers have problems, they phone or visit home (etc.). Mutual respect between and among students and staff. Planning time is for planning (no TV) and scheduled so that groups of teachers are together for planning. Students know that rules and Code of Conduct are implemented and consistently enforced.	Principal focuses on building and individual goals and on national achievement norms. Success is something seen as attainable by everyone. Increased honor roll, good citizenship, attendance and other incentive awards. Ongoing principal/teacher discussions about tests (i.e., CAT). Continuous inservice efforts on expectations, interactions and their relationships to achievement. Many pupil's behavior exhibits high goals and expectations.
↑ Awareness or Interest (Mobilization Knowledge and Persuasion)	EXPLORATION AND DESIGN (INITIATION)	Principal: is a believer; Committed; rededicates him/herself to quality education; develops activities consistent with the purposes of education; establishes building goals and sets norms; remakes schedule to support such practices as learning blocks and common teacher planning time; fosters open communication, decision-making and problem-solving channels; refocuses his/her efforts on instruction.	Staff analyzes school climate profile and building plans are developed to improve identified problem areas. Committees formed to plan strategies. Instruction and learning are seen as the primary focus of school. However, factors affecting instruction such as discipline, rules, and building plant are still examined. Consistent Discipline Code/Handbook developed/updated. Motivational devices (buttons and murals) stress the positive. Award Days. Lots of student oriented activities. Neat building grounds. A clean environment is promoted as everyone's responsibility.	Principal and staff set national norms as standards for group achievement test results. Staff establishes high expectation for all persons in school. Emphasis on positive expectations. "Critical mass" of teachers become believers.
	RECOGNITION AND ORIENTATION	Strong commitment from "central office." Set up some structure for getting things done (i.e., administrative council to coordinate project activities, Task Forces to develop plans for program elements, Grade Level and Content Area Committees). Plan to keep the principal and staff in the same building for several years (Continuity of Leadership). Develop Readiness and Receptivity through public relations and staff awareness workshops. Develop a program and evaluation plan; collect baseline data on attendance, discipline referrals, school climate profiles and student ID's for all students at start of project.		

OVER

Figure 4. Project SHAL replication model.

PROJECT SHAL: AN EFFECTIVE SCHOOL IMPLEMENTATION/REPLICATION MODEL

		PROGRAM ELEMENTS		MAJOR OUTCOMES
STAGES	LEVELS	COMMITMENT TO TEACHING BASIC SKILLS	REGULAR AND CONTINUOUS ASSESSMENT	IMPROVED STUDENT ACHIEVEMENT
Adoption or Adaption (Incorporation) Confirmation	INSTITUTIONALIZATION AND RENEWAL (ADVOCACY)	Principal requires that instructional objectives guide the schools' programs. Critical mass of staff articulate commitment to basic skills. Staff opposes postponement of basic skills instruction for any reason. Emphasizes achievement in reading, math and language writing. Maximum teacher time on task (basic skills instruction) is required. Alternative remedial and accelerated programs are in place (not just pull-out).	Principal: requires use of standardized tests to measure academic achievement; requires use of teacher-made test designed to test achievement of objectives; requires periodic review of school-wide goals, objectives and strategies followed by appropriate change. Views declining achievement test scores as fault of school, not fault of students; Eager to avoid things that don't work; committed to implementing things that do. Frequently performance based on accomplishment of objectives; Teachers frequently evaluate pupil progress personally.	Group achievement scores at each grade level reach and are maintained at the national average or above. Individual students move at or above "average" and rates between pre- and post- test efforts.
↑ Evaluation or Trial (Implementation) Decision	IMPLEMENTATION (TRIAL/PILOT) (APPLICATION)	Teachers and pupils engaged in planned learning efforts. Instruction-oriented staff meetings. Emphasis on basic skills (Mastery Learning and Missouri Math Effectiveness) improvement. No pull-out for Title I students; alternative approaches implemented. Ongoing teacher regrouping as needed. Structure, schedule and model for delivery are all in place.	Administrators monitor teachers' work as teachers are expected to monitor pupils' work. Stated and observed levels of achievement for promotion, homework, grading and minimum competencies implemented. Discussion of results of testing used as an assessment to identify problems and plans. Staff knows how students are progressing (has and uses results of testing programs).	Pupil attendance is increased. More positive parent inputs. Students in classes, not in halls. Increased rate of achievement. Games or contests in schools often focus on pupil achievement; rewards and recognition for achievement are known and respected in the school.
↑ Awareness or Interest (Mobilization Knowledge and Persuasion)	EXPLORATION AND DESIGN (INITIATION)	Teachers agree on skills to be taught and some common goals to be attained. Use of ongoing workshops to introduce several successful basic skills approaches (direct instruction, time on task, etc.). Develop blocks of instructional time with no interruptions. Develop common lists of skills (i.e. for ten-week blocks) for each grade level. Articulation between/among teachers and grades. Teach major subjects early while pupils are most alert. Design spiraled minimum competencies. Inservice focuses on mastery learning of basic skills (Reading and Mathematics).	Teachers agree on expectations for passing or work needed for satisfactory completion. Staff development on test measurement and construction ongoing. Homework policy established.	Pupils seem "happier" at school. A more orderly school. Neater/cleaner/less noisy. More purposeful movement. Homework is being completed as required. Parents know about and support school focus on pupil achievement.
	RECOGNITION AND ORIENTATION	Strong commitment from "central office." Set up some structure for getting things done (i.e., administrative council to coordinate project activities, Task Forces to develop plans for program elements, Grade Level and Content Area Committees). Plan to keep the principal and staff in the same building for several years (Continuity of Leadership). Develop Readiness and Receptivity through public relations and staff awareness workshops. Develop a program and evaluation plan; collect baseline data on attendance, discipline referrals, school climate profiles and student ID's for all students at start of project.		

OVER

Figure 4. (continued)